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PATENTS
Docket No. AEOMICA-11 CON

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Shannon et al.

Application No.: 10/663,470

Filed: September 15, 2003

For : HUMAN GTP-RHO BINDING PROTEIN 2

Hon. Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

# TRANSMITTAL LETTER FOR INFORMATION DISCLOSURE STATEMENT

Sir:

Transmitted herewith is an Information Disclosure Statement in the above-identified application. This Statement is submitted:

- [X] within three months of the application filing date;
- [] more than three months from the application filing date but before the mailing date of the first Office Action on the merits.

In accordance with 37 C.F.R. § 1.97, submission of this Statement requires no fee. However, if for any reason a fee is due, the Director is hereby authorized to charge payment of any fees required in connection with this Information Disclosure Statement to Deposit Account

No. 06-1075. A duplicate copy of this letter is transmitted herewith.

Respectfully submitted,

November 17,2003

David A. Roise Registration No. 47,904 Attorney for Applicants

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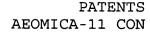
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Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, applicants hereby make the following documents of record in the above identified application:

#### U.S. Patents

6,204,250	03/20/01	Bot et al.
6,204,061	03/20/01	Capecchi et al.
6,187,305	02/13/01	Treco et al.
6,180,377	01/30/01	Morgan et al.
6,180,370	01/30/01	Queen et al.
6,162,963	12/19/00	Kucherlapati et al.
6,150,584	11/21/00	Kucherlapati et al.
6,124,128	09/26/00	Tsien et al.
6,114,598	09/05/00	Kucherlapati et al.
6,110,898	08/29/00	Malone et al.
6,096,865	08/01/00	Michaels

<sup>\*</sup> Applicants reserve the right to challenge the status of any of the cited documents as prior art.

```
6,090,919
                07/18/00
                                Cormack et al.
6,075,181
                07/13/00
                                Kucherlapati et al.
6,066,476
                05/23/00
                                Tsien et al.
6,054,321
                04/25/00
                                Tsien et al.
6,054,297
                04/25/00
                                Carter et al.
6,051,831
                04/18/00
                                Koster
6,048,524
                04/11/00
                                Selden et al.
6,046,800
                04/04/00
                                Ohtomo et al.
6,042,549
                03/28/00
                                Amano et al.
6,027,881
                02/22/00
                                Pavlakis et al.
6,025,201
                02/15/00
                                Zelmanovic et al.
6,017,897
                01/25/00
                                Li et al.
6,016,191
                01/18/00
                                Ramos et al.
                01/11/00
6,013,256
                                Light et al.
6,004,752
                12/21/99
                                Loewy et al.
6,004,744
                12/21/99
                                Goelet et al.
6,001,233
                12/14/99
                                Levy
5,990,689
                11/23/99
                                Poncon
5,985,847
                11/16/99
                                Carson et al.
5,984,175
                11/16/99
                                Popp
5,981,214
                11/09/99
                                Skoultchi
5,968,750
                10/19/99
                                Zolotukhin et al.
5,958,891
                09/28/99
                                Hsu et al.
5,945,339
                08/31/99
                                Holloman et al.
5,939,598
                08/17/99
                                Kucherlapati et al.
5,930,143
                07/27/99
                                Savazzi
5,925,517
                07/20/99
                                Tyagi et al.
5,889,351
                03/30/99
                                Okumura et al.
5,888,983
                03/30/99
                                Kmiec et al.
5,880,104
                03/09/99
                                Li et al.
5,877,397
                03/02/99
                                Lonberg et al.
5,874,304
                02/23/99
                                Zolotukhin et al.
5,874,299
                02/23/99
                                Lonberg et al.
5,871,984
                02/16/99
                                Kmiec
5,869,619
                02/09/99
                                Studnicka
5,854,033
                12/29/98
                                Lizardi
5,846,726
                12/08/98
                                Nadeau et al.
5,843,913
                12/01/98
                                Li et al.
5,830,877
                11/03/98
                                Carson et al.
5,824,269
                10/20/98
                                Kosaka et al.
5,821,337
                10/13/98
                                Carter et al.
5,821,123
                10/13/98
                                Studnicka
5,814,318
                09/29/98
                                Lonberg et al.
5,807,715
                09/15/98
                                Morrison et al.
5,804,566
                09/08/98
                                Carson et al.
                09/08/98
5,804,387
                                Cormack et al.
5,795,972
                08/18/98
                                Kmiec
5,789,650
                08/04/98
                                Lonberg et al.
```

```
5,783,674
                07/21/98
                                Geysen
5,780,296
                07/14/98
                                Holloman et al.
5,777,079
                07/07/98
                                Tsien et al.
5,770,429
                07/23/98
                                Lonberg et al.
5,770,196
                06/23/98
                                Studnicka
5,766,886
                06/16/98
                                Studnicka et al.
5,760,012
                06/02/98
                                Kmiec
5,756,325
                05/26/98
                                Kmiec
5,744,305
                04/28/98
                                Fodor et al.
5,741,668
                04/21/98
                                Ward et al.
5,731,181
                03/24/98
                                Kmiec
5,723,591
                03/03/98
                                Livak et al.
5,719,262
                02/17/98
                                Buchardt et al.
5,714,331
                02/03/98
                                Buchardt et al.
5,714,320
                02/03/98
                                Kool
5,693,761
                12/02/97
                                Queen et al.
5,679,647
                10/21/97
                                Carson et al.
5,677,439
                10/14/97
                                Weis et al.
5,677,437
                                Teng et al.
                10/14/97
5,663,312
                09/02/97
                                Chaturvedula
5,661,016
                08/26/97
                                Lonberg et al.
5,633,425
                05/27/97
                                Lonberg et al.
5,633,360
                05/27/97
                                Bischofberger et al.
5,631,153
                05/20/97
                                Capecchi et al.
5,627,059
                05/06/97
                                Capecchi et al.
5,627,052
                05/06/97
                                Schrader
5,625,126
                04/29/97
                                Lonberg et al.
5,625,050
                04/29/97
                                Beaton et al.
5,625,048
                04/29/97
                                Tsien et al.
5,623,070
                04/22/97
                                Cook et al.
5,618,704
                04/08/97
                                Sanghvi et al.
5,614,396
                03/25/97
                                Bradley et al.
5,610,289
                03/11/97
                                Cook et al.
5,608,046
                03/04/97
                                Cook et al.
5,602,240
                02/11/97
                                De Mesmaeker et al.
5,596,086
                01/21/97
                                Matteucci et al.
5,595,915
                01/21/97
                                Geysen
5,591,669
                01/07/97
                                Krimpenfort et al.
5,589,466
                12/31/96
                                Feigner et al.
5,587,361
                12/24/96
                                Cook et al.
5,571,799
                11/05/96
                                Tkachuk et al.
5,570,694
                11/05/96
                                Rometsch
                                Lonberg et al.
5,569,825
                10/29/96
5,563,253
                10/08/96
                                Agrawal et al.
5,561,225
                10/01/96
                                Maddry et al.
5,550,111
                08/27/96
                                Suhadolnik et al.
5,545,807
                08/13/96
                                Surani et al.
5,545,806
                08/13/96
                                Lonberg et al.
```

```
5,541,307
                07/30/96
                                Cook et al.
5,541,306
                07/30/96
                                Agrawal et al.
5,539,084
                07/23/96
                                Geysen
5,539,082
                                Nielsen et al.
                07/23/96
5,538,848
                07/23/96
                                Livak et al.
5,536,821
                07/16/96
                                Agrawal et al.
5,527,695
                                Hodges et al.
                06/18/96
5,519,126
                05/21/96
                                Hecht
5,489,677
                02/06/96
                                Sanghvi et al.
5,487,992
                01/30/96
                                Capecchi et al.
5,476,925
                12/19/95
                                Letsinger et al.
5,470,967
                11/28/95
                                Huie et al.
5,466,677
                11/14/95
                                Baxter et al.
5,464,764
                11/07/95
                                Capecchi et al.
5,455,233
                10/03/95
                                Spielvogel et al.
5,453,496
                09/26/95
                                Caruthers et al.
5,445,934
                08/29/95
                                Fodor et al.
5,434,257
                07/18/95
                                Matteucci et al.
5,405,939
                04/11/95
                                Suhadolnik et al.
5,405,938
                04/11/95
                                Summerton et al.
5,399,676
                03/21/95
                                Froehler
5,321,131
                06/14/94
                                Agrawal et al.
5,286,717
                02/15/94
                                Cohen et al.
5,279,044
                01/18/94
                                Bremer
5,278,302
                01/11/94
                                Caruthers et al.
5,276,019
                01/04/94
                                Cohen et al.
5,272,071
                12/21/93
                                Chappel
5,264,564
                11/23/93
                                Matteucci
5,264,562
                11/23/93
                                Matteucci
5,264,423
                11/23/93
                                Cohen et al.
5,235,033
                08/10/93
                                Summerton et al.
5,216,141
                06/01/93
                                Benner
5,214,134
                05/25/93
                                Weis et al.
5,188,897
                02/23/93
                                Suhadolnik et al.
5,186,042
                02/16/93
                                Miyazaki
5,185,444
                02/09/93
                                Summerton et al.
5,177,196
                01/05/93
                                Meyer, Jr. et al.
5,166,315
                11/24/92
                                Summerton et al.
5,034,506
                07/23/91
                                Summerton et al.
5,023,243
                06/11/91
                                Tullis
4,708,871
                11/24/87
                                Geysen
                10/09/84
4,476,301
                                Imbach et al.
4,469,863
                09/04/84
                                Ts'o et al.
4,246,774
                01/27/81
                                Flesselles et al.
3,980,986
                09/14/76
                                Baird et al.
3,687,808
                08/29/72
                                Merigan, Jr. et al.
```

#### Foreign Patent Documents

WO	01/05970	01/25/01	PCT
WO	01/72962	10/04/01	PCT
WO	00/15779	03/23/00	PCT
WO	99/58720	11/18/99	PCT
WO	98/59362	12/30/98	PCT
WO	98/59361	12/30/98	PCT
WO	98/59360	12/30/98	PCT
WO	98/12559	03/26/98	PCT
WO	97/43316	11/20/97	PCT
WO	97/34631	09/25/97	PCT
WO	97/19193	05/29/97	PCT
WO	96/32478	10/17/96	PCT
WO	96/18412	06/26/96	PCT

#### Other Patent Documents

Ailor et al., "Overexpression of a Cystolic Chaperone in Insect Cells," Biotechnology & Bioengineering, Vol. 58 No. 2 & 3: pp. 196-203 (April 20/May 5, 1998).

Alers et al., "Universal Linkage System: An Improved Method for Labeling Archival DNA for Comparative Genomic Hybridization," Genes, Chromosomes, and Cancer vol. 25: pp. 301-305 (1999).

Allen et al., "Finding Prospective Partners in the Library: the Two-Hybrid System and Phage Display Find a Match," Trends in Biochemical Science vol. 20: pp. 511-516 (December 1995).

Anzar et al., "Rho Signals to Cell Growth and Apoptosis," Cancer Letters vol. 165: pp. 1-10 (2001).

Assoian et al., "Cell Anchorage and the Cytoskeleton as Partners in Growth Factor Dependent Cell Cycle Progression," Current Opinion in Cell Biology vol. 9: p. 93 (1997).

Aujame et al., "High Affinity Human Antibodies by Phage Display," Human Antibodies vol. 8 no. 4: pp. 155-168 (1997).

Babji et al., Proc. Nat'l. Acad. Sci. USA, 88:10676-10680, December 1991; Genbank Accession Number M77812

Baner et al., "More Keys to Padlock Probes: Mechanisms for High-Throughput Nucleic Acid Analysis," Current Opinion in Biotechnology vol. 12: pp. 11-15 (2001).

Barbas et al., "Selection of Human Anti-Viral Antibodies," Trends in Biotechnology vol. 14: pp. 230-234 (1996).

Becker et al., "High-Efficiency Transformation of Yeast by Electroporation," Methods in Enzymology vol. 194: pp. 182-187 (1991).

Bishop et al., "Rho GTPases and Their Effector Proteins," Biochem. J. vol. 348: pp. 241-255 (2000).

Braga et al., "The Small GTPases Rho and Rac Are Required for the Establishment of Cadherin-Dependent Cell-Cell Contacts," Journal of Cell Biology vol. 137: p. 1421 (1997).

Brenner et al., "In Vitro Cloning of complex Mixtures of DNA on Microbeads: Physical Separation of Differentially Expressed cDNAs," Proc. Nat'l. Acad. Sci. USA vol. 97 no. 4: pp. 16650-16670 (2000).

Burbelo et al., Genbank Accession Number AF268032, June 2, 2001; submitted May 16, 2000

Caron et al., "Identification of Two Distinct Mechanisms of Phagocytosis Controlled by Different Rho GTPases," Science vol. 282: pp. 1717-1721 (1998).

Chan et al., "Triplex DNA: Fundamentals, Advances, and Potential Applications for Gene Therapy," J. Mol. Med. vol. 75 no. 4: pp. 267-282 (1997).

Chen et al., "Herbicide Resistance from a Divide EPSPS Protein: The Split Synechocystis DnaE Intein as an In Vivo Affinity Domain," Gene vol. 263: pp. 39-48 (2001).

Chenchik et al., "Full-Length cDNA Cloning and Determination of mRNA 5' and 3' Ends by Amplification of Adaptor-Ligated cDNA," BioTechniques vol. 21: pp. 526-532 (1996).

Co et al., "Humanized Antibodies for Therapy," Nature vol. 351: pp. 501-502 (6 June 1991).

Cormack et al., "FACS-Optimized Mutants of the Green Fluorescent Protein (GFP)," Gene vol. 173: pp. 33-38 (1996).

Culver et al., "Correction of Chromosomal Point Mutations in Human Cells with Bifunctional Oligonucleotides," Nature Biotechnology vol. 17 no. 10: pp. 989-993 (1999).

Cunningham et al., "High Resolution Epitope Mapping of hGH-Receptor Interactions by Alanine-Scanning Mutagenesis," Science vol. 244 no. 4908: pp. 1081-1085 (2 June 1989).

de Kruif et al., "New Perspectives on Recombinant Human Antibodies," Immunology Today vol. 17 no. 10: pp. 453-455 (1996).

Delgado et al., "The Uses and Properties of PEG-Linked Proteins," Critical Reviews in Therapeutic Drug Carrier Systems vol. 9 nos. 3 &4: pp. 249-304 (1992).

DeSantis et al., "Chemical Modification of Enzymes for Enhanced Functionality," Current Opinion in Biotechnology vol. 10: pp.324-330 (1999).

DiCunto et al., "Citron Rho-Interacting Kinase, a Novel Tissue-Specific Ser/Thr Kinase Encompassing the Rho-Rac-Binding Protein Citron," J. Biol. Chem. vol. 273: pp. 29706-29711 (1998).

DeRisi et al., Nature Genetics, 14:457-459 (1996)

DOE Joint Genome Institute, Genbank Accession Number AC008521, April 2000

Drees, Becky L., "Progress and Variation in Two-Hybrid and Three-Hybrid Technologies," Current Opinion in Chemical Biology vol. 3: pp. 64-70 (1999).

Edelman et al., "Obtaining a Functional Recombinant Anti-Rhesus (D) Antibody Using the Baculovirus-Insect Cell Expression System," Immunology vol. 91: pp. 13-19 (1997).

Eldin et al., "High-Level Secretion of Two Antibody Single Chain Fv Fragments by Pichia Pastroris," Journal of Immunological Methods vol. 201: pp. 67-75 (1997).

Escude et al., "Padlock Oligonucleotides for Duplex DNA Base on Sequence-Specific Triple Helix Formation," Proc. Nat'l. Acad. Sci. USA vol. 96 no. 19: pp. 10603-10607 (1999).

Fashena et al., "The Continued Evolution of Two-Hybrid Screening Approaches in Yeast: How to Outwit Different Preys with Different Baits," Gene vol. 250: pp. 1-14 (2000).

Fields et al., "The Two-Hybrid System: an Assay for Protein-Protein Interactions," Trends in Genetics vol. 10 no. 8: pp. 286-292 (August 1994).

Finn et al., "Synthesis and Properties of DNA-PNA Chimeric Oligomers," Nucleic Acids Research vol. 24: pp. 3357-3363 (1996).

Fischer et al., "Molecular Farming of Recombinant Antibodies in Plants," Biol. Chem. vol. 380: pp. 825-839 (July/August 1999).

Fischer et al., "Towards Molecular Farming in the Future: Pichia Pastoris-Based Production of Single-Chain Antibody Fragments," Biotechnol. Appl. Biochem. vol. 30: pp. 117-120 (1999).

Fischer et al., "Antibody Production by Molecular Farming in Plants," Journal of Biological Regulators and Homeostatic Agents vol. 14 no. 2: pp. 83-92 (2000).

Fischer et al., "Towards Molecular Farming in the Future: Transient Protein Expression in Plants,"

Biotechnol. Appl. Biochem. vol. 30: pp. 113-116 (1999).

Flynn et al., "Multiple Interactions of PRK1 with RhoA", J. of Biol. Chem., 273(5): 2698-2705 (1998)

Fox, "Targeting DNA with Triplexes," Current Medicinal Chemistry vol. 7 no. 1: pp. 17-37 (2000).

Frenken et al., "Recent Advances in the Large-Scale Production of Antibody Fragments Using Lower Eukaryotic

Microorganisms," Res. Immunol. vol. 149: pp. 589-599 (1998).

Freyre et al., "Very High Expression of an Anti-Carcinoembryonic Antigen Single Chain Fv Antibody Fragment in the Yeast Pichia Pastoris," Journal of Biotechnology vol. 76: pp. 157-163 (2000).

Fujisawa et al., "Different Regions of Rho Determine Rho-Selective Binding of Different Classes of Rho Target Molecules," J. of Biol. Chem., vol. 273: pp. 18943-18949 (1998).

Fujita et al, "Ropporin, a Sperm-Specific Binding Protein of Rhophillin, That is Localized in the Fibrous Sheath of Sperm Flagella," Journal of Cell Science vol. 113: pp. 103-112 (2000).

Gamper et al., "The DNA Strand of Chimeric RNA/DNA Oligonucleotides Can Direct Gene Repair/Conversion Activity in Mammalian and Plant Cell-Free Extracts," Nucleic Acids Research vol. 28 no. 21: pp. 4332-4339 (2000).

Gautheret et al., "Alternate Polyadenylation in Human mRNAs: A Large-Scale Analysis by EST Clustering," Genome Research vol. 8: pp. 524-530 (1998).

Gavilondo et al., "Antibody Engineering at the Millennium," Biotechniques vol. 29: pp. 128-138 (2000).

Geysen et al., "Use of Peptide Synthesis to Probe Viral Antigens for Epitopes to a Resolution of a Single Amino Acid," Proc. Nat'l. Acad. Sci. USA, vol. 81: pp. 3998-4002 (1984).

Giddings et al., "Transgenic Plants as Factories for Biopharmaceuticals," Nature Biotechnology vol. 18: pp. 1151-1155 (2000).

Gonnet et al., "Exhaustive Matching of the Entire Protein Sequence Database," Science vol. 256 no. 5062: pp. 1443-1445 (1992).

Griffiths et al., "Strategies for Selection of Antibodies by Phage Display," Current Opinion in Biotechnology vol. 9: pp. 102-108 (1998).

Hall, A., "Rho GTPases and the Actin Cytoskeleton," Science vol. 279: pp. 509-514 (1998).

Heid et al., "Real Time Quantitative PCR," Genome Research vol. 6 no. 10: pp. 986-994 (1996).

Heikal et al., "Molecular Spectroscopy and Dynamics of Intrinsically Fluorescent Proteins: Coral red (dsRed) and Yellow (Citrine)," Proc. Nat'l. Acad. Sci. USA, vol. 97: pp. 11996-12001 (2000).

Heim et al., "Engineering Green Fluorescent Protein for Improved Brightness, Longer Wavelengths and Fluorescence Resonance Energy Transfer," Current Biology vol. 6: pp. 178-182 (1996).

Henegariu et al., "Custom Fluorescent-Nucleotide Synthesis as an Alternative Method for Nucleic Acid Labeling," Nature Biotechnology vol. 18: pp. 345-348 (2000).

Henikoff et al., "Amino Acid Substitution Matrices from Protein Blocks," Proc. Nat'l. Acad. Sci. USA, vol. 89: pp. 10915-10919 (November 1992).

Holland et al., "Detection of Specific Polymerase Chain reaction Product by Utilizing the  $5' \rightarrow 3'$  Exonuclease Activity of Thermus Aquaticus DNA Polymerase," Proc. Nat'l. Acad. Sci. USA vol. 88: pp. 7276-7280 (1991).

Hoogenboom et al., "Antibody Phage Display Technology and its Applications," Immunotechnology, vol. 4: pp. 1-20 (1998).

Hoogenboom, "Designing and Optimizing Library Selection Strategies for Generating High-Affinity Antibodies," Trends in Biotechnology vol. 15: pp. 62-70 (February 1997).

Hsu et al., "Coexpression of Molecular Chaperone BiP Improves Immunoglobulin Solubility and IgG Secretion from Trichoplusia ni Insect Cells," Biotechnol. Prog. vol. 13: pp. 96-104 (1997).

Hudson, "Recombinant Antibody Fragments," Current Opinion in Biotechnology vol. 9: pp. 395-402 (1998).

International Human Genome Sequencing Consortium, Nature vol. 409: pp. 860-921 (15 February 2001).

Jelsma et al., "Increased Labeling of DNA Probes For In Situ Hybridization with the Universal Linkage System (ULS)," Journal of NIH Research vol. 5: p. 82 (1994).

Jin et al., "High Resolution Functional Analysis of Antibody-Antigen Interactions," J. Mol. Biol. vol. 226: pp. 851-865 (1992).

Kochetkova et al., "Triplex-Forming Oligonucleotides and Their Use in the Analysis of Gene Transcription," Methods in Molecular Biology vol. 130: pp. 189-201 (2000).

Kole et al., "Protein-Tyrosine Phosphatase Inhibition by a Peptide Containing the Phosphotryosyl Mimetic, L-O-Malonyltyrosine," Biochemical & Biophysical Research Communications vol. 209 no. 3: pp. 817-821 (1995).

Kostrikis et al., "Spectral Genotyping of Human Alleles," Science vol. 279: pp. 1228-1229 (1998).

Kozma et al., "Rho Family GTPases and Neuronal Growth Cone Remodelling: Relationship Between Increased Complexity Induced by Cdc42Hs, Rac1, and Acetylcholine and Collapse Induced by RhoA and Lysophosphatidic Acid," Molecular and Cellular Biology vol. 17: p. 1201 (1997).

Kricka et al., "Comparison of 5-Hydroxy-2, 3-Dihydrophthalazine-1, 4-Dione and Luminol as Co-Substrates for Detection of Horseradish Peroxidase in Enhanced Chemiluminescent Reactions," Journal of Immunoassay vol. 17: pp. 67-83 (1996).

Kuimelis et al., "Structural Analogues of TaqMan Probes for Real-Time Quantitative PCR," Nucleic Acids Symposium Series no. 37: pp. 255-256 (1997).

Lander et al., "The Chipping Forecast," Supplement to Nature Genetics vol. 21 no. 1: pp. 1-60 (January 1999).

Larsen et al., "Antisense Properties of Peptide Nucleic Acid," Biochimica et Biophysical Acta 1489: pp. 159-166 (1999).

Lauffer et al., "MS-325: Albumin-Targeted Contrast Agent for MR Angiography," Radiology vol. 207 no. 2: pp. 529-538 (1998).

Lerner, "Tapping the Immunological Repertoire to Produce Antibodies of Predetermined Specificity," Nature vol. 299: pp. 592-596 (1982).

Li et al., "Deletions of the Aequorea Victoria Green Fluorescent Protein Define the Minimal Domain Required for Fluorescence," J. of Biol. Chem., vol. 272: pp. 28545-28549 (1997).

Li et al., "Production of Functional Antibodies Generated in a Nonlytic Insect Cell Expression System," Protein Expression and Purification vol. 21: pp. 121-128 (2001).

Liu et al., "Progress Toward the Evolution of an Organism with an Expanded Genetic Code," Proc. Nat'l. Acad. Sci. USA vol. 96: pp. 4780-4785 (1999).

Lizardi et al., "Mutation Detection and Single-Molecule Counting Using Isothermal Rolling-Circle Amplification," Nature Genetics vol. 19: pp. 225-232 (1998).

Luban et al., "The Yeast Two-Hybrid System for Studying Protein-Protein Interactions," Current Opinions in Biotechnology vol. 6: pp. 59-64 (1995).

Lundqvist et al., "Influence of Different Luminols on the Characteristics of the Chemiluminescence Reaction in Human Neutrophils," J. Biolumin. Chemilumin. vol. 10: pp. 353-359 (1995).

Ma et al., "Plant Antibodies for Immunotherapy," Plant Physiology vol. 109: pp. 341-346 (1995).

Marinissen et al., "Regulation of Gene Expression by the Small GTPase Rho Through the ERK6 (p38lambda) MAP Kiinase Pathway," Genes & Development vol. 15: pp. 535-553 (2001).

Marras et al., "Multiplex Detection of Single-Nucleotide Variations Using Molecular Beacons," Genetic Analysis: Biomolecular Engineering vol. 14: pp. 151-156 (1999).

Mendelsohn et al., "Applictions of Interaction Traps/Two-Hybrid Systems to Biotechnology Research," Current Opinion in Biotechnology vol. 5: pp. 482-486 (1994).

Merchant et al., "Recent Advancements in Surface-Enhanced Laser Desorption/Ionization-Time of Flight-Mass Spectrometry," *Electrophoresis vol. 21*: pp. 1164-1177 (2000).

Merk et al., "Cell-Free Expression of Two Single-Chain Monoclonal Antibodies Against Lysozyme: Effect of Domain Arrangement on the Expression," J. Biochem. vol. 125 no. 2: pp. 328-33 (1999).

Misra et al., "Polyamide Nucleic Acid-DNA Chimera Lacking the Phosphate Backbone Are Novel Primers for Polymerase Reaction Catalyzed by DNA Polymerases," Biochemistry vol. 37: pp. 1917-1925 (1998).

Miyawaki et al., "Fluorescent Indicators for CA2+ Based on Green Fluorescent Proteins and Calmodulin," Nature vol. 388: pp. 882-887 (1997).

Morrison et al., "Chimeric Human Antibody Molecules: Mouse Antigen-Binding Domains with Human constant Region Domains," Proc. Nat'l. Acad. Sci. USA, vol. 81: pp. 6851-6855 (1984).

Nesbit et al., "Production of a Functional Monoclonal Antibody Recognizing Human Colorectal Carcinoma Cells from a Baculovirus Expression System," Journal of Immunological Methods vol. 151: pp. 201-208 (1992).

Nielsen, "Peptide Nucleic Acids as Therapeutic Agents," Current Opinion in Structural Biology vol. 9: pp. 353-357 (1999).

Nielsen, "Applications of Peptide Nucleic Acids," Current Opinion in Biotechnology vol. 10: pp. 71-75 (1999).

Nielsen et al., "Peptide Nucleic Acids: On the Road to New Gene Therapeutic Drugs," Pharmacology & Toxicology vol. 86: pp. 3-7 (2000).

Nilsson et al., "Padlock Probes: Cirularizing Oligonucleotides for Localized DNA Detection," Science vol. 265 no. 5181: pp. 2085-2088 (1994).

Ormö et al., "Crystal Structure of the Aequorea Victoria Green Fluorescent Protein," Science vol. 273: pp. 1392-1395 (1996).

Palm et al., "Spectral Variants of Green Fluorescent Protein," Methods in Enzymology vol. 302: pp. 378-394 (1999).

Penn et al., "Mining the Human Genome Using Microarrays of Open Reading Frames," Nature Genetics vol. 26: pp. 315-318 (2000).

Pennell et al., "In Vitro Production of Recombinant Antibody Fragments in Picia Pastoris," Research in Immunology vol. 149 no. 6: pp. 599-603 (1998).

Pollock et al., "Transgenic Milk as a Method for the Production of Recombinant Antibodies," Journal of Immunological Methods vol. 231: pp. 147-157 (1999).

Posnett et al., "A Novel Method for Producing Anti-Peptide Antibodies," J. of Biol. Chem., vol. 263: pp. 1719-1725 (1988).

Praseuth et al., "Triple Helix Formation and the Antigene Strategy for Sequence-Specific Control of Gene Expression," Biochimica et Biophysical Acta 1489: pp. 181-206 (1999).

Prokopenko et al., "Untying the Gordian Knot of Cytokinesis: Role of Small G Proteins and Their Regulators," Journal of Cell Biology vol. 148: pp. 843-848 (2000).

Rader et al., "Phase Display of Combinatorial Antibody Libraries," Current Opinion in Biotechnology vol. 8: pp. 503-508 (1997).

Ray et al., "Peptide Nucleic Acid (PNA): Its Medical and Biotechnical Applications and Promise for the Future," FASEB Journal vol. 14 no. 9: pp. 1041-1060 (2000).

Reid et al., "Rhotekin, a New Putative Target for Rho Bearing Homology to a Serine/Threonine Kinase, PKN, and Rhophillin in the Rho-Binding Domain," J. of Biol. Chem., vol. 271: pp. 13558-13560 (1996).

Ridley, A.J., "The GTP Binding Protein Rho," Int. J. Biochem. Cell Biol. vol. 29: pp. 1225-1229 (1997).

Riechmann et al., "Reshaping Human Antibodies for Therapy," Nature vol. 332: pp. 323-327 (24 March 1988).

Russell, D.A., "Feasibility of Antibody Production in Plants for Human Therapeutic Use," Current Topics in Microbiology & Immunology vol. 240: pp. 119-38 (1999).

Ryabova et al., "Functional Antibody Production Using Cell-Free Translation: Effects of Protein Disulfide Isomerase and Chaperones," Nature Biotechnology vol. 15: pp. 79-84 (1997).

Sambrook et al., "Expression of Cloned Genes in E. coli", Molecular Cloning, (1992)

Schiestl et al., "High Efficiency Transformation of Intact Yeast Cells Using Single Stranded Nucleic Acids as a Carrier," Current Genetics vol. 16 nos.5 & 6: pp. 339-346 (1989).

Schmitz et al., "Rho GTPases: Signaling, Migration, and Invasion," Experimental Cell Research, vol. 261: pp. 1-12 (2000).

Schoner et al., "Translation of a Synthetic Two-Cistron mRNA in Escherichia coli," Proc. Nat'l. Acad. Sci. USA vol. 83: pp. 8506-8510 (1986).

Schweitzer et al., "Combining Nucleic Acid Amplification and Detection," Current Opinion in Biotechnology vol. 12 no. 1: pp. 21-27 (2001).

Scott et al., "Cellular Camouflage: Fooling the Immune System with Polymers," Current Pharmaceutical Design vol. 4: pp. 423-438 (1998).

Sharon et al., "Expression of a VHCK Chimaeric Protein in Mouse Myeloma Cells," Nature vol. 309: pp. 364-367 (1984).

Shinnick et al., "Synthetic Peptide Immunogens as Vaccines," Annual Review of Microbiology vol. 37: pp. 425-446 (1983).

Shusta et al., "Increasing the Secretory Capacity of Saccharomyces Cerevisiae for Production of Single-Chain Antibody Fragments," Nature Biotechnology vol. 16: pp. 773-777 (August 1998).

Sidhu, Sachdev S., "Phage Display in Pharmaceutical Biotechnology," Current Opinion in Biotechnology vol. 11: pp. 610-616 (2000).

Sonstegard et al., Genbank Accession Number BE478809, August 2000

Sokol et al., "Real Time Detection of DNA-RNA Hybridization in Living Cells," Proc. Nat'l. Acad. Sci. USA vol. 95: pp. 11538-11543 (1998).

Sutcliffe et al., "Antibodies that React with Predetermined Sites on Proteins," Science vol. 219: pp. 660-666 (1983).

Takahashi et al., "Production of Humanized Fab Fragment Against Human High Affinity IgE Receptor in Pichia Pastoris," Biosci. Biotechnol. Biochem. vol. 64 no. 10: pp. 2138-2144 (2000).

Takai Y. et al., "Small GTP Binding Proteins," Physiological Review vol. 18: pp. 153-208 (2001).

Takeda et al., "Construction of Chimaeric Processed Immunoglobulin Genes Containing Mouse Variable and Human constant Region Sequences," Nature vol. 314: pp. 452-454 (April 1985).

Tam et al., "Synthetic Peptide Vaccine Design: Synthesis and Properties of a High-Density Multiple Antigenic Peptide System," Proc. Nat'l. Acad. Sci. USA vol. 85: pp. 5409-5413 (1988).

Tatiana et al., "Blast 2 Sequences - A New Tool for Comparing Protein and Nucleotide Sequences," FEMS Microbiology Letters vol. 174: pp. 247-250 (1999).

Thorpe et al., "Bioluminescense and Chemiluminescence," Methods in Enzymology vol. 133: pp. 331-353 (1986).

Topcu et al., "The Yeast Two-Hybrid System and Its Pharmaceutical Significance," Pharmaceutical Research vol. 17 no. 9: pp. 1049-1055 (2000).

Tyagi et al., "Molecular Beacons: Probes that Fluoresce upon Hybridization," Nature Biotechnology vol. 14: pp. 303-308 (1996).

Tyagi et al., "Multicolor Molecular Beacons for Allele Discrimination," Nature Biotechnology vol. 16: pp. 49-53 (1998).

Van Belkum et al., "Non-Isotopic Labeling of DNA by Newly Developed Hapten-Containing Platinum Compounds," BioTechniques vol. 16: pp. 148-153 (1994).

Verma et al., "Antibody Engineering: Comparison of Bacterial, Yeast, Insect and Mammalian Expression Systems," Journal of Immunological Methods vol. 216: pp. 165-81 (1998).

Watanbe et al., "Protein Kinase N (PKN) and PKN-Related Protein Rhophilin as Targets of Small GTPase Rho," Science vol. 271: pp. 645-648 (1996).

Weiss et al., "Rapid Mapping of Protein Functional Epitopes by Combinatorial Alanine Scanning," Proc. Nat'l. Acad. Sci. USA, vol. 97: pp. 8950-8954 (2000).

Winter et al., "Making Antibodies by Phage Display Technology," Annual Review of Immunology: pp. 433-455 (1994).

Wu et al., Genbank Accession Number AC025267, October 2000; submitted March 2000

A printout of the web page describing the "EZ-Detect Rho Activation Kit" from Pierce Biotechnology

A printout of the web page describing "Rhotekin-RBD Protein GST Beads" from Cytoskeleton, Inc.

A printout of the web page describing "Rhotekin Rho Binding Domain, agarose" from Upstate Cell Signaling Solutions

In accordance with 37 C.F.R. § 1.98 (d), copies of these documents, all of which were made of record in U.S. Patent Application No. 09/895,040, from which priority is claimed under 35 U.S.C. § 120, are not submitted herewith.

It is respectfully requested that these documents be (1) fully considered by the Patent and Trademark Office during the examination of this application; and (2) printed on any patent that may issue on this application.

Applicants request that a copy of Form PTO-1449 (submitted in duplicate herewith), as considered and initialed by the Examiner, be returned with the next communication.

An early and favorable action is respectfully requested.

Respectfully submitted,

November 17,2003

David A. Roise

Reg. No. 47,904

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Attorney for Applicants

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## U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

ATTY. DOCKET NO. AEOMICA-11 CON	SERIAL NO. 10/663,470
APPLICANT Shannon et al.	
FILING DATE September 15, 2003	GROUP

#### **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,204,250	03/20/01	Bot et al.			7.1.1.1.0.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
	6,204,061	03/20/01	Capecchi et al.		· · · · · · · · · · · · · · · · · · ·	
	6,187,305	02/13/01	Treco et al.			
	6,180,377	01/30/01	Morgan et al.			
	6,180,370	01/30/01	Queen et al.			
	6,162,963	12/19/00	Kucherlapati et al.			
•	6,150,584	11/21/00	Kucherlapati et al.			
	6,124,128	09/26/00	Tsien et al.			
	6,114,598	09/05/00	Kucherlapati et al.			
	6,110,898	08/29/00	Malone et al.			. "-
	6,096,865	08/01/00	Michaels			
	6,090,919	07/18/00	Cormack et al.			
	6,075,181	07/13/00	Kucherlapati et al.			
	6,066,476	05/23/00	Tsien et al.			
	6,054,321	04/25/00	Tsien et al.			
	6,054,297	04/25/00	Carter et al.			
-	6,051,831	04/18/00	Koster			
	6,048,524	04/11/00	Selden et al.			
	6,046,800	04/04/00	Ohtomo et al.			
	6,042,549	03/28/00	Amano et al.			
	6,027,881	02/22/00	Pavlakis et al.			
	6,025,201	02/15/00	Zelmanovic et al.			
	6,017,897	01/25/00	Li et al.			
	6,016,191	01/18/00	Ramos et al.			
	6,013,256	01/11/00	Light et al.			
	6,004,752	12/21/99	Loewy et al.			
	6,004,744	12/21/99	Goelet et al.			
	6,001,233	12/14/99	Levy			
	5,990,689	11/23/99	Poncon			

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### **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,985,847	11/16/99	Carson et al.			7.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
	5,984,175	11/16/99	Рорр			
	5,981,214	11/09/99	Skoultchi			
	5,968,750	10/19/99	Zolotukhin et al.			
	5,958,891	09/28/99	Hsu et al.			
	5,945,339	08/31/99	Holloman et al.			
	5,939,598	08/17/99	Kucherlapati et al.			
	5,930,143	07/27/99	Savazzi			
	5,925,517	07/20/99	Tyagi et al.			
	5,889,351	03/30/99	Okumura et al.			
	5,888,983	03/30/99	Kmiec et al.			
	5,880,104	03/09/99	Li et al.	"		
	5,877,397	03/02/99	Lonberg et al.			
	5,874,304	02/23/99	Zolotukhin et al.			
	5,874,299	02/23/99	Lonberg et al.			
	5,871,984	02/16/99	Kmiec			
	5,869,619	02/09/99	Studnicka			
	5,854,033	12/29/98	Lizardi	***		
	5,846,726	12/08/98	Nadeau et al.			
	5,843,913	12/01/98	Li et al.			•
	5,830,877	11/03/98	Carson et al.			
	5,824,269	10/20/98	Kosaka et al.			-
	5,821,337	10/13/98	Carter et al.			
	5,821,123	10/13/98	Studnicka			
	5,814,318	09/29/98	Lonberg et al.			
	5,807,715	09/15/98	Morrison et al.			
	5,804,566	09/08/98	Carson et al.			
	5,804,387	09/08/98	Cormack et al.			
	5,795,972	08/18/98	Kmiec			

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Shannon et al.

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### **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,789,650	08/04/98	Lonberg et al.			APPROPRIATE
	5,783,674	07/21/98	Geysen	1		
	5,780,296	07/14/98	Holloman et al.	_	<u>.                                    </u>	<del></del>
	5,777,079	07/07/98	Tsien et al.			
	5,770,429	07/23/98	Lonberg et al.	-		
	5,770,196	06/23/98	Studnicka			
	5,766,886	06/16/98	Studnicka et al.			
	5,760,012	06/02/98	Kmiec	<del></del>		
	5,756,325	05/26/98	Kmiec	-		
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	5,744,305	04/28/98	Fodor et al.			
	5,741,668	04/21/98	Ward et al.			
	5,731,181	03/24/98	Kmiec	+		
	5,723,591	03/03/98	Livak et al.			
<del></del>	5,719,262	02/17/98	Buchardt et al.			
	5,714,331	02/03/98	Buchardt et al.			
	5,714,320	02/03/98	Kool			
	5,693,761	12/02/97	Queen et al.			
	5,679,647	10/21/97	Carson et al.			
	5,677,439	10/14/97	Weis et al.			
	5,677,437	10/14/97	Teng et al.			
	5,663,312	09/02/97	Chaturvedula			
	5,661,016	08/26/97	Lonberg et al.			
****	5,633,425	05/27/97	Lonberg et al.			
	5,633,360	05/27/97	Bischofberger et al.			
	5,631,153	05/20/97	Capecchi et al.			
	5,627,059	05/06/97	Capecchi et al.			
	5,627,052	05/06/97	Schrader			
	5,625,126	04/29/97	Lonberg et al.			
	5,625,050	04/29/97	Beaton et al.			

**EXAMINER** 



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FILING DATE September 15, 2003	GROUP

### **U.S. PATENT DOCUMENTS**

5,625,048 04/29/97 Tsien et al. 5,623,070 04/22/97 Cook et al. 5,618,704 04/08/97 Sanghvi et al. 5,614,396 03/25/97 Bradley et al. 5,610,289 03/11/97 Cook et al. 5,610,289 03/41/97 Cook et al. 5,608,046 03/04/97 Cook et al. 5,608,046 03/04/97 Cook et al. 5,596,086 01/21/97 Matteucci et al. 5,595,915 01/21/97 Geysen 5,591,669 01/07/97 Krimpenfort et al. 5,589,466 12/31/96 Feigner et al. 5,587,361 12/24/96 Cook et al. 5,577,799 11/05/96 Tkachuk et al. 5,577,799 11/05/96 Rometsch 5,569,825 10/29/96 Lonberg et al. 5,563,253 10/08/96 Agrawal et al. 5,565,255 110/01/96 Maddry et al. 5,550,111 08/27/96 Suhadolnik et al. 5,545,806 08/13/96 Lonberg et al. 5,544,807 08/13/96 Cook et al. 5,541,306 07/30/96 Cook et al. 5,541,307 07/30/96 Cook et al. 5,541,308 07/23/96 United al. 5,541,309 07/30/96 Cook et al. 5,541,300 07/30/96 Cook et al.	EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
5,623,070       04/22/97       Cook et al.         5,618,704       04/08/97       Sanghvi et al.         5,614,396       03/25/97       Bradley et al.         5,610,289       03/11/97       Cook et al.         5,608,046       03/04/97       Cook et al.         5,602,240       02/11/97       De Mesmaeker et al.         5,596,086       01/21/97       Matteucci et al.         5,591,691       01/21/97       Krimpenfort et al.         5,591,669       01/07/97       Krimpenfort et al.         5,589,466       12/31/96       Feigner et al.         5,587,361       12/24/96       Cook et al.         5,571,799       11/05/96       Tkachuk et al.         5,570,694       11/05/96       Rometsch         5,569,825       10/29/96       Lonberg et al.         5,551,225       10/01/96       Maddry et al.         5,550,111       08/27/96       Suhadolnik et al.         5,543,807       08/13/96       Lonberg et al.         5,541,307       07/30/96       Agrawal et al.         5,539,084       07/23/96       Agrawal et al.         5,539,082       07/23/96       Agrawal et al.         5,539,082       07/23/96       Agrawal		5,625,048	04/29/97	Tsien et al.			7.11.11.01.11.11.11.11
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# U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

NFORMATION DISCLOSURE STATEMENT BY APPLICANT

ATTY. DOCKET NO. AEOMICA-11 CON	SERIAL NO. 10/663,470
APPLICANT Shannon et al.	
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**September 15, 2003** 

**U.S. PATENT DOCUMENTS** 

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,487,992	01/30/96	Capecchi et al.			
•	5,476,925	12/19/95	Letsinger et al.			
	5,470,967	11/28/95	Huie et al.			
	5,466,677	11/14/95	Baxter et al.			
<del></del>	5,464,764	11/07/95	Capecchi et al.			
	5,455,233	10/03/95	Spielvogel et al.			
	5,453,496	09/26/95	Caruthers et al.			
	5,445,934	08/29/95	Fodor et al.			
	5,434,257	07/18/95	Matteucci et al.		X	
	5,405,939	04/11/95	Suhadolnik et al.	,,,,,	·	
	5,405,938	04/11/95	Summerton et al.		····	
	5,399,676	03/21/95	Froehler			
	5,321,131	06/14/94	Agrawal et al.			
	5,286,717	02/15/94	Cohen et al.		- A	
	5,279,044	01/18/94	Bremer			
	5,278,302	01/11/94	Caruthers et al.			
	5,276,019	01/04/94	Cohen et al.		-	
	5,272,071	12/21/93	Chappel		····	
	5,264,564	11/23/93	Matteucci			
	5,264,562	11/23/93	Matteucci			
	5,264,423	11/23/93	Cohen et al.			
	5,235,033	08/10/93	Summerton et al.			
	5,216,141	06/01/93	Benner			
	5,214,134	05/25/93	Weis et al.			1
	5,188,897	02/23/93	Suhadolnik et al.			
	5,186,042	02/16/93	Miyazaki			<u> </u>
	5,185,444	02/09/93	Summerton et al.			
	5,177,196	01/05/93	Meyer, Jr. et al.			
	5,166,315	11/24/92	Summerton et al.			

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**U.S. PATENT DOCUMENTS** 

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,034,506	07/23/91	Summerton et al.			
	5,023,243	06/11/91	Tullis			
	4,708,871	11/24/87	Geysen			
	4,476,301	10/09/84	Imbach et al.			
	4,469,863	09/04/84	Ts'o et al.			
	4,246,774	01/27/81	Flesselles et al.			
	3,980,986	09/14/76	Baird et al.			
	3,687,808	08/29/72	Merigan, Jr. et al.			

### FOREIGN PATENT DOCUMENTS

EXAMINER	DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANS	LATION
INITIAL	NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
	WO 01/05970	01/25/01	PCT				
	WO 01/72962	10/04/01	PCT				
	WO 00/15779	03/23/00	PCT				
	WO 99/58720	11/18/99	PCT				
	WO 98/59362	12/30/98	PCT				
	WO 98/59361	12/30/98	PCT				
	WO 98/59360	12/30/98	PCT				
	WO 98/12559	03/26/98	PCT				
	WO 97/43316	11/20/97	PCT				
	WO 97/34631	09/25/97	PCT				
	WO 97/19193	05/29/97	PCT				-
	WO 96/32478	10/17/96	PCT				
	WO 96/18412	06/26/96	PCT				

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
EXAMINER INITIAL	
	Ailor et al., "Overexpression of a Cystolic Chaperone in Insect Cells," Biotechnology & Bioengineering, Vol. 58 No. 2 & 3: pp. 196-203 (April 20/May 5, 1998).
	Alers et al., "Universal Linkage System: An Improved Method for Labeling Archival DNA for Comparative Genomic Hybridization," Genes, Chromosomes, and Cancer vol. 25: pp. 301-305 (1999).
	Allen et al., "Finding Prospective Partners in the Library: the Two-Hybrid System and Phage Display Find a Match," Trends in Biochemical Science vol. 20: pp. 511-516 (December 1995).
	Anzar et al., "Rho Signals to Cell Growth and Apoptosis," Cancer Letters vol. 165: pp. 1-10 (2001).
	Assoian et al., "Cell Anchorage and the Cytoskeleton as Partners in Growth Factor Dependent Cell Cycle Progression," Current Opinion in Cell Biology vol. 9: p. 93 (1997).
	Aujame et al., "High Affinity Human Antibodies by Phage Display," Human Antibodies vol. 8 no. 4: pp. 155-168 (1997).
	Babji et al., <i>Proc. Nat'l. Acad. Sci. USA</i> , 88:10676-10680, December 1991; Genbank Accession Number M77812
	Baner et al., "More Keys to Padlock Probes: Mechanisms for High-Throughput Nucleic Acid Analysis," Current Opinion in Biotechnology vol. 12: pp. 11-15 (2001).
	Barbas et al., "Selection of Human Anti-Viral Antibodies," Trends in Biotechnology vol. 14: pp. 230-234 (1996).
	Becker et al., "High-Efficiency Transformation of Yeast by Electroporation," <i>Methods in Enzymology vol.</i> 194: pp. 182-187 (1991).
	Bishop et al., "Rho GTPases and Their Effector Proteins," Biochem. J. vol. 348: pp. 241-255 (2000).
	Braga et al., "The Small GTPases Rho and Rac Are Required for the Establishment of Cadherin- Dependent Cell-Cell Contacts," Journal of Cell Biology vol. 137: p. 1421 (1997).
	Brenner et al., "In Vitro Cloning of complex Mixtures of DNA on Microbeads: Physical Separation of Differentially Expressed cDNAs," Proc. Nat'l. Acad. Sci. USA vol. 97 no. 4: pp. 16650-16670 (2000).
	Burbelo et al., Genbank Accession Number AF268032, June 2, 2001; submitted May 16, 2000
	Caron et al., "Identification of Two Distinct Mechanisms of Phagocytosis Controlled by Different Rho GTPases," Science vol. 282: pp. 1717-1721 (1998).
	Chan et al., "Triplex DNA: Fundamentals, Advances, and Potential Applications for Gene Therapy," J. Mol. Med. vol. 75 no. 4: pp. 267-282 (1997).
	Chen et al., "Herbicide Resistance from a Divide EPSPS Protein: The Split Synechocystis DnaE Intein as an In Vivo Affinity Domain," Gene vol. 263: pp. 39-48 (2001).
	Chenchik et al., "Full-Length cDNA Cloning and Determination of mRNA 5' and 3' Ends by Amplification of Adaptor-Ligated cDNA," BioTechniques vol. 21: pp. 526-532 (1996).

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### U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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ATTY. DOCKET NO. AEOMICA-11 CON		SERIAL NO. 10/663,470	
	APPLICANT Shannon et al.		
	FILING DATE	GROUP	

EXAMINER INITIAL	
	Co et al., "Humanized Antibodies for Therapy," Nature vol. 351: pp. 501-502 (6 June1991).
	Cormack et al., "FACS-Optimized Mutants of the Green Fluorescent Protein (GFP)," Gene vol. 173: pp. 33-38 (1996).
	Culver et al., "Correction of Chromosomal Point Mutations in Human Cells with Bifunctional Oligonucleotides," Nature Biotechnology vol. 17 no. 10: pp. 989-993 (1999).
	Cunningham et al., "High Resolution Epitope Mapping of hGH-Receptor Interactions by Alanine-Scanning Mutagenesis," Science vol. 244 no. 4908: pp. 1081-1085 (2 June 1989).
	de Kruif et al., "New Perspectives on Recombinant Human Antibodies," Immunology Today vol. 17 no. 10: pp. 453-455 (1996).
	Delgado et al., "The Uses and Properties of PEG-Linked Proteins," Critical Reviews in Therapeutic Drug Carrier Systems vol. 9 nos. 3 &4: pp. 249-304 (1992).
	DeSantis et al., "Chemical Modification of Enzymes for Enhanced Functionality," Current Opinion in Biotechnology vol. 10: pp.324-330 (1999).
	DiCunto et al., "Citron Rho-Interacting Kinase, a Novel Tissue-Specific Ser/Thr Kinase Encompassing the Rho-Rac-Binding Protein Citron," J. Biol. Chem. vol. 273: pp. 29706-29711 (1998).
	DeRisi et al., Nature Genetics, 14:457-459 (1996)
,	DOE Joint Genome Institute, Genbank Accession Number AC008521, April 2000
	Drees, Becky L., "Progress and Variation in Two-Hybrid and Three-Hybrid Technologies," Current Opinion in Chemical Biology vol. 3: pp. 64-70 (1999).
	Edelman et al., "Obtaining a Functional Recombinant Anti-Rhesus (D) Antibody Using the Baculovirus-Insect Cell Expression System," <i>Immunology vol. 91</i> : pp. 13-19 (1997).
	Eldin et al., "High-Level Secretion of Two Antibody Single Chain Fv Fragments by Pichia Pastroris," Journal of Immunological Methods vol. 201: pp. 67-75 (1997).
·	Escude et al., "Padlock Oligonucleotides for Duplex DNA Base on Sequence-Specific Triple Helix Formation," Proc. Nat'l. Acad. Sci. USA vol. 96 no. 19: pp. 10603-10607 (1999).
	Fashena et al., "The Continued Evolution of Two-Hybrid Screening Approaches in Yeast: How to Outwit Different Preys with Different Baits," Gene vol. 250: pp. 1-14 (2000).
	Fields et al., "The Two-Hybrid System: an Assay for Protein-Protein Interactions," Trends in Genetics vol. 10 no. 8: pp. 286-292 (August 1994).
	Finn et al., "Synthesis and Properties of DNA-PNA Chimeric Oligomers," Nucleic Acids Research vol. 24: pp. 3357-3363 (1996).
	Fischer et al., "Molecular Farming of Recombinant Antibodies in Plants," Biol. Chem. vol. 380: pp. 825-839 (July/August 1999).

### **EXAMINER**

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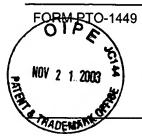
INFORMATION DISCLOSURE STATEMENT BY APPLICANT

ATTY. DOCKET NO. AEOMICA-11 CON	SERIAL NO. 10/663,470
APPLICANT Shannon et al.	
FILING DATE September 15, 2003	GROUP

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
	Fischer et al., "Towards Molecular Farming in the Future: Pichia Pastoris-Based Production of Single-Chain Antibody Fragments," Biotechnol. Appl. Biochem. vol. 30: pp. 117-120 (1999).
	Fischer et al., "Antibody Production by Molecular Farming in Plants," Journal of Biological Regulators and Homeostatic Agents vol. 14 no. 2: pp. 83-92 (2000).
	Fischer et al., "Towards Molecular Farming in the Future: Transient Protein Expression in Plants," Biotechnol. Appl. Biochem. vol. 30: pp. 113-116 (1999).
	Flynn et al., "Multiple Interactions of PRK1 with RhoA", J. of Biol. Chem., 273(5): 2698-2705 (1998)
	Fox, "Targeting DNA with Triplexes," Current Medicinal Chemistry vol. 7 no. 1: pp. 17-37 (2000).
	Frenken et al., "Recent Advances in the Large-Scale Production of Antibody Fragments Using Lower Eukaryotic Microorganisms," Res. Immunol. vol. 149: pp. 589-599 (1998).
<del></del>	Freyre et al., "Very High Expression of an Anti-Carcinoembryonic Antigen Single Chain Fv Antibody Fragment in the Yeast <i>Pichia Pastoris</i> ," <i>Journal of Biotechnology vol. 76</i> : pp. 157-163 (2000).
	Fujisawa et al., "Different Regions of Rho Determine Rho-Selective Binding of Different Classes of Rho Target Molecules," J. of Biol. Chem. vol. 273: pp. 18943-18949 (1998).
	Fujita et al, "Ropporin, a Sperm-Specific Binding Protein of Rhophillin, That is Localized in the Fibrous Sheath of Sperm Flagella," <i>Journal of Cell Science vol. 113</i> : pp. 103-112 (2000).
	Gamper et al., "The DNA Strand of Chimeric RNA/DNA Oligonucleotides Can Direct Gene Repair/Conversion Activity in Mammalian and Plant Cell-Free Extracts," <i>Nucleic Acids Research vol. 28 no. 21</i> : pp. 4332-4339 (2000).
	Gautheret et al., "Alternate Polyadenylation in Human mRNAs: A Large-Scale Analysis by EST Clustering," Genome Research vol. 8: pp. 524-530 (1998).
	Gavilondo et al., "Antibody Engineering at the Millennium," Biotechniques vol. 29: pp. 128-138 (2000).
	Geysen et al., "Use of Peptide Synthesis to Probe Viral Antigens for Epitopes to a Resolution of a Single Amino Acid," Proc. Nat'l. Acad. Sci. USA vol. 81: pp. 3998-4002 (1984).
	Giddings et al., "Transgenic Plants as Factories for Biopharmaceuticals," Nature Biotechnology vol. 18: pp. 1151-1155 (2000).
	Gonnet et al., "Exhaustive Matching of the Entire Protein Sequence Database," Science vol. 256 no. 5062: pp. 1443-1445 (1992).
	Griffiths et al., "Strategies for Selection of Antibodies by Phage Display," Current Opinion in Biotechnology vol. 9: pp. 102-108 (1998).
	Hall, A., "Rho GTPases and the Actin Cytoskeleton," Science vol. 279: pp. 509-514 (1998).
	Heid et al., "Real Time Quantitative PCR," Genome Research vol. 6 no. 10: pp. 986-994 (1996).

**EXAMINER** 



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

	<u></u>
ATTY. DOCKET NO. AEOMICA-11 CON	SERIAL NO. 10/663,470
APPLICANT Shann n et al.	
FILING DATE September 15, 2003	GROUP

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) **EXAMINER** INITIAL Heikal et al., "Molecular Spectroscopy and Dynamics of Intrinsically Fluorescent Proteins: Coral red (dsRed) and Yellow (Citrine)," Proc. Nat'l. Acad. Sci. USA vol. 97: pp. 11996-12001 (2000). Heim et al., "Engineering Green Fluorescent Protein for Improved Brightness, Longer Wavelengths and Fluorescence Resonance Energy Transfer," Current Biology vol. 6: pp. 178-182 (1996). Henegariu et al., "Custom Fluorescent-Nucleotide Synthesis as an Alternative Method for Nucleic Acid Labeling," Nature Biotechnology vol. 18: pp. 345-348 (2000). Henikoff et al., "Amino Acid Substitution Matrices from Protein Blocks," Proc. Nat'l. Acad. Sci. USA vol. 89: pp. 10915-10919 (November 1992). Holland et al., "Detection of Specific Polymerase Chain reaction Product by Utilizing the 5' → 3' Exonuclease Activity of Thermus Aquaticus DNA Polymerase," Proc. Nat'l. Acad. Sci. USA vol. 88: pp. 7276-7280 (1991). Hoogenboom et al., "Antibody Phage Display Technology and its Applications," Immunotechnology, vol. 4: pp. 1-20 (1998). Hoogenboom, "Designing and Optimizing Library Selection Strategies for Generating High-Affinity Antibodies," Trends in Biotechnology vol. 15: pp. 62-70 (February 1997). Hsu et al., "Coexpression of Molecular Chaperone BiP Improves Immunoglobulin Solubility and IgG Secretion from Trichoplusia ni Insect Cells," Biotechnol. Prog. vol. 13: pp. 96-104 (1997). Hudson, "Recombinant Antibody Fragments," Current Opinion in Biotechnology vol. 9: pp. 395-402 (1998).International Human Genome Sequencing Consortium, Nature vol. 409: pp. 860-921 (15 February 2001). Jelsma et al., "Increased Labeling of DNA Probes For In Situ Hybridization with the Universal Linkage System (ULS)," Journal of NIH Research vol. 5: p. 82 (1994). Jin et al., "High Resolution Functional Analysis of Antibody-Antigen Interactions," J. Mol. Biol. vol. 226: pp. 851-865 (1992) Kochetkova et al., "Triplex-Forming Oligonucleotides and Their Use in the Analysis of Gene Transcription," Methods in Molecular Biology vol. 130: pp. 189-201 (2000). Kole et al., "Protein-Tyrosine Phosphatase Inhibition by a Peptide Containing the Phosphotryosyl Mimetic, L-O-Malonyltyrosine," Biochemical & Biophysical Research Communications vol. 209 no. 3: pp. 817-821 (1995). Kostrikis et al., "Spectral Genotyping of Human Alleles," Science vol. 279: pp. 1228-1229 (1998). Kozma et al., "Rho Family GTPases and Neuronal Growth Cone Remodelling: Relationship Between Increased Complexity Induced by Cdc42Hs, Rac1, and Acetylcholine and Collapse Induced by RhoA and Lysophosphatidic Acid," Molecular and Cellular Biology vol. 17: p. 1201 (1997).

**EXAMINER** 



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

ATTY. DOCKET NO. AEOMICA-11 CON	SERIAL NO. 10/663,470
APPLICANT Shannon et al.	
FILING DATE September 15, 2003	GROUP

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
EXAMINER INITIAL	*
	Kricka et al., "Comparison of 5-Hydroxy-2, 3-Dihydrophthalazine-1, 4-Dione and Luminol as Co-Substrates for Detection of Horseradish Peroxidase in Enhanced Chemiluminescent Reactions," <i>Journa of Immunoassay vol. 17</i> : pp. 67-83 (1996).
	Kuimelis et al., "Structural Analogues of TaqMan Probes for Real-Time Quantitative PCR," Nucleic Acids Symposium Series no. 37: pp. 255-256 (1997).
	Lander et al., "The Chipping Forecast," Supplement to Nature Genetics vol. 21 no. 1: pp. 1-60 (January 1999).
	Larsen et al., "Antisense Properties of Peptide Nucleic Acid," Biochimica et Biophysical Acta 1489: pp. 159-166 (1999).
	Lauffer et al., "MS-325: Albumin-Targeted Contrast Agent for MR Angiography," Radiology vol. 207 no. 2: pp. 529-538 (1998).
	Lerner, "Tapping the Immunological Repertoire to Produce Antibodies of Predetermined Specificity," <i>Nature vol. 299:</i> pp. 592-596 (1982).
	Li et al., "Deletions of the Aequorea Victoria Green Fluorescent Protein Define the Minimal Domain Required for Fluorescence," J. of Biol. Chem. vol. 272: pp. 28545-28549 (1997).
	Li et al., "Production of Functional Antibodies Generated in a Nonlytic Insect Cell Expression System," Protein Expression and Purification vol. 21: pp. 121-128 (2001).
	Liu et al., "Progress Toward the Evolution of an Organism with an Expanded Genetic Code," Proc. Nat'l. Acad. Sci. USA vol. 96: pp. 4780-4785 (1999).
	Lizardi et al., "Mutation Detection and Single-Molecule Counting Using Isothermal Rolling-Circle Amplification," <i>Nature Genetics vol.</i> 19: pp. 225-232 (1998).
	Luban et al., "The Yeast Two-Hybrid System for Studying Protein-Protein Interactions," Current Opinions in Biotechnology vol. 6: pp. 59-64 (1995).
	Lundqvist et al., "Influence of Different Luminols on the Characteristics of the Chemiluminescence Reaction in Human Neutrophils," J. Biolumin. Chemilumin. vol. 10: pp. 353-359 (1995).
	Ma et al., "Plant Antibodies for Immunotherapy," Plant Physiology vol. 109: pp. 341-346 (1995).
	Marinissen et al., "Regulation of Gene Expression by the Small GTPase Rho Through the ERK6 (p38lambda) MAP Kiinase Pathway," Genes & Development vol. 15: pp. 535-553 (2001).
	Marras et al., "Multiplex Detection of Single-Nucleotide Variations Using Molecular Beacons," Genetic Analysis: Biomolecular Engineering vol. 14: pp. 151-156 (1999).
	Mendelsohn et al., "Applictions of Interaction Traps/Two-Hybrid Systems to Biotechnology Research," Current Opinion in Biotechnology vol. 5: pp. 482-486 (1994).
	Merchant et al., "Recent Advancements in Surface-Enhanced Laser Desorption/Ionization-Time of Flight-Mass Spectrometry," Electrophoresis vol. 21: pp. 1164-1177 (2000).

### **EXAMINER**

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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. AEOMICA-11 CON

**September 15, 2003** 

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APPLICANT **Shannon et al.** 

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GROUP

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<b>UENAKE</b>	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
EXAMINER INITIAL	
	Merk et al., "Cell-Free Expression of Two Single-Chain Monoclonal Antibodies Against Lysozyme: Effect of Domain Arrangement on the Expression," J. Biochem. vol. 125 no. 2: pp. 328-33 (1999).
	Misra et al., "Polyamide Nucleic Acid-DNA Chimera Lacking the Phosphate Backbone Are Novel Primers for Polymerase Reaction Catalyzed by DNA Polymerases," <i>Biochemistry vol.</i> 37: pp. 1917-1925 (1998).
	Miyawaki et al., "Fluorescent Indicators for CA2+ Based on Green Fluorescent Proteins and Calmodulin," Nature vol. 388: pp. 882-887 (1997).
	Morrison et al., "Chimeric Human Antibody Molecules: Mouse Antigen-Binding Domains with Human constant Region Domains," <i>Proc. Nat'l. Acad. Sci. USA vol. 81</i> : pp. 6851-6855 (1984).
	Nesbit et al., "Production of a Functional Monoclonal Antibody Recognizing Human Colorectal Carcinoma Cells from a Baculovirus Expression System," <i>Journal of Immunological Methods</i> vol. 151: pp. 201-208 (1992).
	Nielsen, "Peptide Nucleic Acids as Therapeutic Agents," Current Opinion in Structural Biology vol. 9: pp 353-357 (1999).
	Nielsen, "Applications of Peptide Nucleic Acids," Current Opinion in Biotechnology vol. 10: pp. 71-75 (1999).
	Nielsen et al., "Peptide Nucleic Acids: On the Road to New Gene Therapeutic Drugs," Pharmacology & Toxicology vol. 86: pp. 3-7 (2000).
	Nilsson et al., "Padlock Probes: Cirularizing Oligonucleotides for Localized DNA Detection," Science vol 265 no. 5181: pp. 2085-2088 (1994).
	Ormö et al., "Crystal Structure of the Aequorea Victoria Green Fluorescent Protein," Science vol. 273: pp. 1392-1395 (1996).
	Palm et al., "Spectral Variants of Green Fluorescent Protein," Methods in Enzymology vol. 302: pp. 378-394 (1999).
	Penn et al., "Mining the Human Genome Using Microarrays of Open Reading Frames," Nature Genetics vol. 26: pp. 315-318 (2000).
	Pennell et al., "In Vitro Production of Recombinant Antibody Fragments in Picia Pastoris," Research in Immunology vol. 149 no. 6: pp. 599-603 (1998).
	Pollock et al., "Transgenic Milk as a Method for the Production of Recombinant Antibodies," Journal of Immunological Methods vol. 231: pp. 147-157 (1999).
	Posnett et al., "A Novel Method for Producing Anti-Peptide Antibodies," J. of Biol. Chem. vol. 263: pp. 1719-1725 (1988).
	Praseuth et al., "Triple Helix Formation and the Antigene Strategy for Sequence-Specific Control of Gene Expression," Biochimica et Biophysical Acta 1489: pp. 181-206 (1999).

#### **EXAMINER**

**FORM PTO-1449** 

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
AEOMICA-11 CON

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Shann n et al.

SERIAL NO.
10/663,470

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

FILING DATE GROUP
September 15, 2003

EXAMINER INITIAL	
	Prokopenko et al., "Untying the Gordian Knot of Cytokinesis: Role of Small G Proteins and Their Regulators," Journal of Cell Biology vol. 148: pp. 843-848 (2000).
	Rader et al., "Phase Display of Combinatorial Antibody Libraries," Current Opinion in Biotechnology vol. 8: pp. 503-508 (1997).
	Ray et al., "Peptide Nucleic Acid (PNA): Its Medical and Biotechnical Applications and Promise for the Future," FASEB Journal vol. 14 no. 9: pp. 1041-1060 (2000).
	Reid et al., "Rhotekin, a New Putative Target for Rho Bearing Homology to a Serine/Threonine Kinase, PKN, and Rhophillin in the Rho-Binding Domain," <i>Journal of Biol. Chem. vol. 271</i> : pp. 13558-13560 (1996).
	Ridley, A.J., "The GTP Binding Protein Rho," Int. J. Biochem. Cell Biol. vol. 29: pp. 1225-1229 (1997).
	Riechmann et al., "Reshaping Human Antibodies for Therapy," Nature vol. 332: pp. 323-327 (24 March 1988).
	Russell, D.A., "Feasibility of Antibody Production in Plants for Human Therapeutic Use," Current Topics in Microbiology & Immunology vol. 240: pp. 119-38 (1999).
	Ryabova et al., "Functional Antibody Production Using Cell-Free Translation: Effects of Protein Disulfide Isomerase and Chaperones," <i>Nature Biotechnology vol. 15</i> : pp. 79-84 (1997).
·	Sambrook et al., "Expression of Cloned Genes in E. coli", Molecular Cloning, (1992)
	Schiestl et al., "High Efficiency Transformation of Intact Yeast Cells Using Single Stranded Nucleic Acids as a Carrier," Current Genetics vol. 16 nos.5 & 6: pp. 339-346 (1989).
	Schmitz et al., "Rho GTPases: Signaling, Migration, and Invasion," Experimental Cell Research vol. 261. pp. 1-12 (2000).
·	Schoner et al., "Translation of a Synthetic Two-Cistron mRNA in Escherichia coli," Proc. Nat'l. Acad. Sci. USA vol. 83: pp. 8506-8510 (1986).
	Schweitzer et al., "Combining Nucleic Acid Amplification and Detection," Current Opinion in Biotechnology vol. 12 no. 1: pp. 21-27 (2001).
	Scott et al., "Cellular Camouflage: Fooling the Immune System with Polymers," Current Pharmaceutical Design vol. 4: pp. 423-438 (1998).
	Sharon et al., "Expression of a VHCK Chimaeric Protein in Mouse Myeloma Cells," Nature vol. 309: pp. 364-367 (1984).
	Shinnick et al., "Synthetic Peptide Immunogens as Vaccines," Annual Review of Microbiology vol. 37: pp. 425-446 (1983).
	Shusta et al., "Increasing the Secretory Capacity of Saccharomyces Cerevisiae for Production of Single-Chain Antibody Fragments," Nature Biotechnology vol. 16: pp. 773-777 (August 1998).

#### **EXAMINER**

FORM PTO-1449

### U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. AEOMICA-11 CON	SERIAL NO. 10/663,470
APPLICANT Shann n et al.	
FILING DATE	GROUP

**September 15, 2003** 

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) **EXAMINER** INITIAL Sidhu, Sachdev S., "Phage Display in Pharmaceutical Biotechnology," Current Opinion in Biotechnology vol. 11: pp. 610-616 (2000). Sonstegard et al., Genbank Accession Number BE478809, August 2000 Sokol et al., "Real Time Detection of DNA-RNA Hybridization in Living Cells," Proc. Nat'l. Acad. Sci. USA vol. 95: pp. 11538-11543 (1998). Sutcliffe et al., "Antibodies that React with Predetermined Sites on Proteins," Science vol. 219: pp. 660-666 (1983). Takahashi et al., "Production of Humanized Fab Fragment Against Human High Affinity IgE Receptor in Pichia Pastoris," Biosci. Biotechnol. Biochem. vol. 64 no. 10: pp. 2138-2144 (2000). Takai Y. et al., "Small GTP Binding Proteins," Physiological Review vol. 18: pp. 153-208 (2001). Takeda et al., "Construction of Chimaeric Processed Immunoglobulin Genes Containing Mouse Variable and Human constant Region Sequences," Nature vol. 314: pp. 452-454 (April 1985). Tam et al., "Synthetic Peptide Vaccine Design: Synthesis and Properties of a High-Density Multiple Antigenic Peptide System," Proc. Nat'l. Acad. Sci. USA vol. 85: pp. 5409-5413 (1988). Tatiana et al., "Blast 2 Sequences - A New Tool for Comparing Protein and Nucleotide Sequences," FEMS Microbiology Letters vol. 174: pp. 247-250 (1999) Thorpe et al., "Bioluminescense and Chemiluminescence," Methods in Enzymology vol. 133: pp. 331-353 (1986). Topcu et al., "The Yeast Two-Hybrid System and Its Pharmaceutical Significance," Pharmaceutical Research vol. 17 no. 9: pp. 1049-1055 (2000). Tyagi et al., "Molecular Beacons: Probes that Fluoresce upon Hybridization," Nature Biotechnology vol. 14: pp. 303-308 (1996). Tyagi et al., "Multicolor Molecular Beacons for Allele Discrimination," Nature Biotechnology vol. 16: pp. 49-53 (1998). Van Belkum et al., "Non-Isotopic Labeling of DNA by Newly Developed Hapten-Containing Platinum Compounds," BioTechniques vol. 16: pp. 148-153 (1994). Verma et al., "Antibody Engineering: Comparison of Bacterial, Yeast, Insect and Mammalian Expression Systems," Journal of Immunological Methods vol. 216: pp. 165-81 (1998). Watanbe et al., "Protein Kinase N (PKN) and PKN-Related Protein Rhophilin as Targets of Small GTPase Rho," Science vol. 271: pp. 645-648 (1996). Weiss et al., "Rapid Mapping of Protein Functional Epitopes by Combinatorial Alanine Scanning," Proc. Nat'l. Acad. Sci. USA vol. 97: pp. 8950-8954 (2000). Winter et al., "Making Antibodies by Phage Display Technology," Annual Review of Immunology: pp. 433-455 (1994).

### **EXAMINER**

## U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

ATTY. DOCKET NO. AEOMICA-11 CON	SERIAL NO. 10/663,470
APPLICANT Shannon et al.	
FILING DATE September 15, 2003	GROUP

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
EXAMINER INITIAL	
	Wu et al., Genbank Accession Number AC025267, October 2000; submitted March 2000
	A printout of the web page describing the "EZ-Detect Rho Activation Kit" from Pierce Biotechnology
· · ·	A printout of the web page describing "Rhotekin-RBD Protein GST Beads" from Cytoskeleton, Inc.
	A printout of the web page describing "Rhotekin Rho Binding Domain, agarose" from Upstate Cell Signaling Solutions